

Application No.: 10/656,736
Docket No.: SS3335 US DIV 1

Page 3

REMARKS

The amendment to claim 27 corrects a typographical error. No new matter is submitted.

Requirement for New Oath/Declaration

At page 2 of the outstanding Office Action, the Examiner requires Applicants to submit a new oath or declaration having the serial number assigned to the present divisional application thereon, rather than the serial number of the originally-filed parent application. Applicants traverse this requirement, and direct the Examiner's attention to 37 C.F.R. §1.63(d)(1), which states that a new declaration is not required in a divisional application, unless there is a change in inventorship to add inventors. Applicants are not adding inventors to the present application, but will review inventorship of the claims of this divisional application to determine whether one or more of the named inventors should be deleted. Withdrawal of the requirement is requested.

Rejection under 35 U.S.C. §103 over Sarni et al. in view of GB 1,060,689

Claims 27-32 stand rejected under 35 U.S.C. §103 as being obvious over Sarni et al. (U.S. Patent No. 6,295,925) in view of GB 1,060,689 (hereinafter GB '689). Applicants traverse this basis for rejection and respectfully request reconsideration and withdrawal thereof.

Nature of the Present Invention

The present application is directed to a method and apparatus for heat-treating a nonwoven fabric that is sensitive to tension on the fabric during the heat-treating operation. One object of the present invention is reduce or eliminate stretch-type defects which can form in the fabric on heat-treating, by reducing or eliminating machine direction tension on the fabric during the heat-treating process.

Accordingly, the present inventors have developed an apparatus which acts to partially heat-treat the fabric in a first heating zone, under machine direction tension provided by a tension isolation means outside the exit of said first heating zone, and then to complete the heat-treating operation with the fabric under reduced or essentially no tension in the second heating zone. The tension isolation means situated between the first and second heating zones not only acts to provide tension on the fabric within the first heating zone, but to reduce or eliminate tension on the fabric in the second heating zone, thus reducing or eliminating the occurrence of stretch-type defects in the finished fabric.

Application No.: 10/656,736
Docket No.: SS3335 US DIV 1

Page 4

The Prior Art

Sarni et al. is directed to an improvement to a flexographic tag and label press, the improvement being a mid-driven infeed tension controlling system installed between the printing/drying section and the converting section of the press (Abstract). The printing/drying section of the press can have a number of printing and drying stations where different colors are printed on the web material (col. 3, lines 35-45). The "converting" section of the press can be utilized to die cut, crease, perforate, laminate, etc. to produce the finished tag or label (col. 3, lines 45-48). Sarni et al. disclose that it is very difficult to maintain even tension through the printing/drying section, and they disclose inserting their inventive mid-driven infeed tension controlling system between the printing/drying section and the converting section (col. 3, lines 57-65).

Sarni et al. fail to disclose or suggest that their mid-driven infeed tension controlling system should be inserted between first and second heating zones (Sarni et al. do not disclose a second heating zone, but instead a "converting" section), and also fail to disclose or suggest that their tension controlling system acts to cause a reduction in tension as the web material exits the tension controlling system and are passed through a second heating zone, as claimed herein.

Accordingly, Sarni et al. fails to meet all the limitations of the present claims, and cannot be said to establish a *prima facie* case of obviousness as to the present claims.

GB '689 appears to represent closer prior art to the present claims than does Sarni et al. GB '689 discloses a device to improve heat-treatment of fabrics comprising two separate heat-treatment chambers, unlike Sarni et al. The GB '689 device seeks to reduce "necking" of the fabric, i.e. transverse shrinkage, by adding a necking compensator 3 (Fig. 1) for adjusting the longitudinal tension exerted on the fabric immediately after it leaves the first heat-treatment chamber so as to prevent necking, followed by "scutching means" for altering the width of the fabric prior to passing it into a second heat-treatment chamber (page 1, lines 51-75). The necking compensator is illustrated in Fig. 3, and comprises two fixed guide rolls 16 and a compensating roll 17 therebetween. Compensating roll 17 is attached to the opposite side of an endless chain 18 from an adjustable weight 20, which combine to act as a tension compensating device for the fabric (page 2, lines 38-51).

GB '689 fails to disclose or suggest that their necking compensator reduces tension on the fabric as it travels through the second heat-treatment chamber, as claimed herein. It would appear that the necking compensator acts to maintain constant tension (which might increase due to shrinkage of the fabric during heat-treatment) on the heat-treated fabric exiting the first heat-treatment chamber, similar

Application No.: 10/656,736
Docket No.: SS3335 US DIV 1

Page 5

to the tension controlling system of Sarni et al. The GB '689 necking compensator acts to stretch the fabric in the transverse direction as it passes over scutching device 4 (Fig. 4; page 2, lines 52-59), presumably aided by the tension maintained on the web in the longitudinal direction by the necking compensator, rather than reducing (or eliminating) tension on the fabric as claimed in the present application.

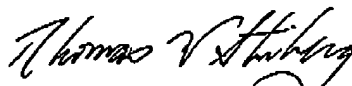
Thus, neither Sarni et al. nor GB '689, alone or in combination, discloses or suggests a tension isolation means which acts to apply tension to a sheet within a first heating zone, but to reduce tension on the sheet as it passes through a second heating zone, as claimed herein. Applicants respectfully submit that the references, even in combination, fail to teach each and every limitation of the present claims, and therefore fail to establish a *prima facie* case of obviousness as to the present claims.

Application No.: 10/656,736
Docket No.: SS3335 US DIV 1

Page 6

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,



THOMAS W. STEINBERG
ATTORNEY FOR APPLICANTS
Registration No.: 37,013
Telephone: (302) 892-0887
Facsimile: (302) 892-7343

Dated: _____

TWS:fgl

12/7/05